

Alkaloids of *Prillaria sewerzowii*. S. YUCUSKY, H. A. KONOVALOVA and A. P. ORDOYEV. *J. Gen. Chem.* (U. S. S. R.) 9, 1911-14 (1939).—Brin, with CaCl_2 of 100 g. of dry, powdered *Prillaria sewerzowii* (Karolinskii *sewerzowii*), family Leguminaceae (gathered in August in Central Asia) gave 925 g. (0.92%) of crude bases which by repeated extractions of reworking yielded a new alkaloid, named *prillarin*, $\text{C}_{14}\text{H}_{17}\text{NO}_3$, m. 271-2°, n_D^{20} 1.0855; n_D^{25} 1.0811, in 525-8°; M_e 161.17, m. 310-11°. It contains 3 OH groups with a tertiary N and probably has the formula $\text{C}_{14}\text{H}_{17}(\text{N})(\text{OH})_3$. The investigation is being continued.

Chas. Blane

Chas. Mann

430.314 BIOLOGICAL LITERATURE CLASSIFICATION

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

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1. KONOVALOVA, P. A., YUNUSOV, S., OREKHOV, A.P.

2. USSR (600)

"On the Alkaloids of Plants of the Family Papaveraceae. VI. The Alkaloids of the Glacium Giebrilligerum", Zhur. Obshch. Khim, 9, No. 21, 1939. Alkaloid Dept. All-Union Sci.-Res. Chemico-Pharmaceutical Inst. Imeni S. Ordzhonikidze. Received 4 June 1952.

9. ~~Report~~ Report U- 1626, 11 Jan 1952

YUNUSOV, S.

Yunusov, S. - "On the dynamics of accumulation, the role and the formation of alkaloids in plants", Izvestiya Akad. nauk UzSSR, 1948, No. 4, p. 11-27, (Resume in Uzbek), Bibliog: 67 items.

SO: U-3042, 11 March 1953, (Ietopis 'nykh Statey, No. 10, 1949).

YUNUSOV, S. Yu.

Yunusov, S. Yu. "On determining the structure of alkaloids of the aporphine group,"
Doklady Akad nauk UzSSR, No. 8, 1948, p. 12-16 - Resume in Uzbek language - Bibliog:
p. 16

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

YUNUSOV, S.

PA 7.0

USSR/Chemistry - Alkaloids Mar 1948
Chemistry - Alkaloids, Zengoricum

"The Alkaloids Aconitum Söcangoricum Stapf. I.
Alkaloids of Ranunculaceae Family," S. Yunusov, Lab
of Chem of Alkaloids, Inst Chem, Acad Sci Uzbek SSR,
Tashkent, 12½ pp

"Zhur Obshch Khim" Vol XVIII (LXX), No 3

New alkaloid having formula $C_{21}H_{29}NO_3$, known as
'zongorinon,' was obtained from roots of Aconitum
söcangoricum Stapf. Gives description of following
'zongorinons': semicarbazone, diacetyl-, dihydro-,
dihydrodiacetyl-, dichlor-, iodmethyle-zongorines.
Submitted 28 Jan 1947.

69T6

CA

The alkaloids of *Leontice ewersmannii* and *Leontice alberti*. S. Yunusov and L. G. Sorokina (Acad. Sci., U.S.S.R.). *J. Gen. Chem.* (U.S.S.R.) 19, No. 19, 4427-35 (1949) (English translation).—See C.A. 44, 1997b. B. J. C.

CA Yunusov, p.

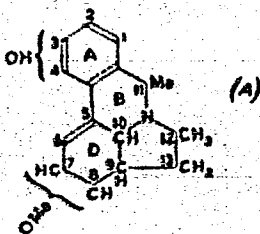
Alkaloids of *Cocculus laurifolius*. 1. S. Yunusov (Lab. Alkaloid Chem., Inst. Chem., Acad. Sci. Uzbek. S.S.R., Tashkent). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 368-78 (1950). — Extn. of *Cocculus laurifolius* leaves with $(CH_2Cl)_2$ in NH_4OH (5%) gave 0.9% total alkaloids. The nonphenolic fraction treated with HCl in Me_2CO gave, from 45 g. crude oils, 41 g. cocculidins- HCl , m. 174-5° (from $EtOAc$ after drying at 90-100° in vacuo); the free base liberated by NH_4OH , m. 88-7° (from petr. ether), is $C_{17}H_{19}O_2N$, [α]_D 250.9° (in $CHCl_3$), having no N-Me or OH groups; nitrate, m. 131.5-2.5° (crude oil), m. 137-8° (from Me_2CO); methiodide, m. 238-9°. The phenolic fraction of alkaloids crystd. from Me_2CO gave (from 3 g. crude oils) 3.3 g. cocculins, $C_{17}H_{19}O_2N$, m. 217-18° (from Me_2CO), [α]_D 271.1° ($MeOH$); nitrate, m. 198-7° (from $EtOH$); HCl salt, m. 222-3°; methylation with CH_3I gave the -OMe deriv., identical with the methiodide of cocculidine (mixed m.p.), i.e., dimethoxy deriv. of $C_{17}H_{19}N$. G. M. Kosolapoff

Alkaloids of Ranunculaceae. III. Alkaloids of *Thalictrum minus*. S. Yunusov and N. N. Prokhorov (Lab. Khim. Alkaloid. Inst. Khim., Akad. Nauk Uzbek S.S.R., Tashkent). *Zhur. Obshch. Khim.* (J. Gen. Chem.) 20, 1161-61 (1950); cf. C.A. 44, 7028i. -- Extn. of air-dried *Thalictrum minus* with (CH₂Cl)₂ in the presence of 10% NH₄OH gave 0.41% total alkaloids. Extn. with EtOH of 121.2 g. of such a mat. gave 40 g. insol. thalimine, C₁₈H₂₁N₃O₃, decomp. 247-9° (crude), m. 253° (pure, from EtOH-CHCl₃), [α]_D -64.5°; HCl salt, decomp. 147-57° (from EtOH); methiodide, decomp. 250° (from EtOH); perchlorate, decomp. 238-41°. The alc.-sol. alkaloid portion yielded on cooling to -10° 14 g. thalimidine, C₁₈H₂₁N₃O₃, decomp. 192-3° (from EtOH), [α]_D 252.2° (CHCl₃); methiodide, decomp. 254-5°. Similar extn. of the roots of the plant gave 0.95 or 0.83% total alkaloids, depending on the time of collection (spring or fall). These yielded 3 alkaloids: thalimine, C₁₈H₂₁N₃O₃, m. 137-8° (from MeOH), isolated through the poorly sol. HCl salt, m. 268-70°, [α]_D 255.3° (EtOH); III salt, decomp. 221-4° (in sealed tube); HBr salt, m. 258-60° (from H₂O); methiodide, m. 238-7° (in sealed tube); acetylation of this alkaloid with AcCl 12 days at room temp. gave an Ac deriv., m. 191-2°, which is optically inactive. The mother liquor after isolation of thalimine yields upon neutralization with NH₃ and treatment with tartaric acid (in EtOH) 17 g. thalimidine tartrate, decomp. 239-40° (in sealed tube); free base, C₁₈H₂₁N₃O₃, m. 192-3°, [α]_D -84° (EtOH), with neg. reactions for aldehyde, ketone, or methylenedioxy groups; III salt, decomp. 222-6° (sealed tube); methiodide, m. 217-17.5° (from EtOH). Extn. of the residual alkaloid mass with hot EtOH and Me₂CO gave an orange base, m. 243°. All 3 alkaloids appear to be derivs. of 2-methylbenzyltetrahydroisquinoline, the latter being the structure of thalimine. G. M. Kosolapoff

Alkaloids of *Cocculus laurifolius*. II. Structure of cocculidine and cocculine. S. Yumurov (Lab. Khim. Alkaloid. Inst. Khim., Akad. Nauk Tadzhik S.S.R., Tashkent). *Zhur. Obshch. Khim.* (1. Gen. Chem.) 20, 1514 (1954); cf. *Obshch. Khim.* (1. Gen. Chem.) 20, 1514 (1954); cf. *Obshch. Khim.* (1. Gen. Chem.) 20, 1514 (1954). The 1st step of the Hofmann degradation of cocculidine with KOH and AgOH proceeds similarly to that of 1-substituted tetrahydroisoquinoline alkaloids, yielding optically active *des-N-methylcocculidine*, m. 82-83° (from petr. ether), [α]_D²⁰ 108.50°. *methiodide*, m. 245-6° (from petr. ether). The 11 ring is opened with loss of asymmetry at Cation II. The 2nd step of the degradation gives a double bond largely at the 9,10-position (ring I), followed by loss of a MeO group as MeOH, with aromatization, leading to *des-N-methylcocculidine*, *collidine*, b.p. 150-5°, optically inactive, and contg. 1 MeO group and 1 vinyl link. *HCl salt*, m. 195-6°. The 3rd step of the degradation yields *methoxy-2,3-dimethylbiphenyl*, b.p. 218°, which with KOH, in Me₂CO gives *methoxy-2,3-biphenyldimethylamine*, m. 120-20° (from EtOH), optically inactive; *di-Me ester*, m. 77-8° (from petr. ether). Distn. of the acid with Zn dust gave *fluorene*. Hence the N of cocculidine and cocculine is at the fusion point of the pyrrolidine and piperidine rings; the phenolic group in cocculine is in the aromatic ring A, while the double bond and MeO are in ring D, the possible location of the double bond being at 5,6 or 7,8. Cocculine and cocculidine are derivs. of phenanthridine and indole. The plant also contains a 3rd alkaloid of nonphenolic type, which is a deriv. of 1-methyl- or 1-benzyltetrahydroisoquinoline. (G. M. Kosolapoff).

BA
AD

Alkaloids of *Cocculus laurifolius*, D.G. II. Structure of cocculidine and cocculine. S. Yunoshev, (J. gen. Chem. USSR, 1950, 20, 1514--1523 [U.S. transl., 1577--1586]).—The first stage of the Hofmann degradation of cocculidine, under the action of KOH or AgOH, takes place in the same manner as with 1-substituted tetrahydroisoquinoline alkaloids, with the formation of optically active "d-N-methyl-cocculine". In this reaction, the chief result is the opening of ring B and the destruction of the asymmetry of C₁₀. At the second stage of the degradation, carried out by the action of KOH or AgOH, a double linking is formed chiefly between C₇ and C_{10a}. After the appearance of this second double linking in ring D, MeOH is eliminated by union of OH₂ with H, and the ring acquires aromatic character. Thus, after the second stage of the degradations, all four C atoms have lost their asymmetry, and optically inactive "d-NN-dimethylcocculine" is obtained containing 1 OMe and 1 CH=CH₂ group. The third stage of the degradation leads to the formation of methoxy-2 : 3'-divinylidiphenyl, the structure of which is



over

YUNUSOV, S.

"The alkaloids of Delphinium semibarbatum. IV. Alkaloids of the Ranunculaceae order." by S. Yunusov and N. K. Abubakirov. (p.174)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1951, Volume 21, No. 1

CA

Alkaloids of the Ranunculaceae family. V. Delphinium
creophilum. S. Yamaov and N. K. Abubakirov. J.
Gen. Chem. U.S.S.R. 21, 1039-65(1951)(Engl. transla-
tion).—See C.A. 46, 510g. B. R.

Card 1 of 2

MANUSOV, S.

(CA 47 no.16:8084 J3)

Chemistry - Alkaloids

Jun

of Alkaloids of Thalictum minus L. II. The structure of Thalictum and Thalictidine, S. MANUSOV, N. N. Progressor, Lab. of Alkaloid Chem, Inst. of Chem, Acad. Sci. Uzbek SSR, Tashkent

"Izvestiya Khim" Vol XXII, No 6, pp 1047-1051

Let of the functional groups permits describing the formula of thalictidine $C_{20}H_{23}NO_4$ as $C_{16}H_{10}O^-(CH_3)(OCH_3)_3(OH)$. The hydroxyl group has weak phenolic properties. The OH group retains these properties in the des-N-methylthalictidine. Oxidation of the substance obtained by boiling

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USSR/Chemistry - Alkaloids (Contd 1)

Jun 52

thalictidine in acetic anhydride yields melophanic acid. Oxidation of thalictidine itself yields methemipinic acid. Hofmann's degradation of O-methylthalictidine, repeated twice, yielded a nitrogen-free substance, which upon oxidation yielded tetramethoxy-phenanthrene-carboxylic acid. The roots of Thalictum minus L., in the immature state, contain d-glucose, which was identified as O-methylthalictidine. The structure of thalictidine is that of a 2,3,5-trimethoxy-6-hydroxyxanthophyll. Melophanic acid and phenanthrene were obtained from N-acetylthalictidine, which is optically inactive and not basic. After Hofmann's degradation had

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YUNUSOV, S.

Card 2 of 2

USSR/Chemistry - Alkaloids (Contd 2)

been carried out twice, thalicmine yield trimethoxy methylene dioxy-vinylphenanthrene. Thalicmine is a deriv of pentahydroxyaporphine. Apparently its structure corresponds to 3,4,7-trimethoxy-5,6-methylenedioxy aporphine.

218T27

IR Chem.

Alkaloids

Ac. A. ... Haplophyllum perforatum, H. ...
 ... P. Salyakin, Lab of Alkaloid Chem,
 ... of Chem. Acad. Sci. Uzbek SSR, Tashkent

but Obshch. Khim. Vol XXII, No 6, pp 1055-1061

Obtained the following alkaloids from the leaves,
 ... and young stems of Haplophyllum perforatum
 (M.B.) Karst. Kir.: octamantine, a cryst base with
 mp 110-111°, and the new alkaloid haploperine
 $C_{17}H_{25}NO_6$ (OCH₃)₂, mp 155-156°. Obtained the hydro-
 chloride of haploperine (mp 129-131°) and hexahy-
 drohaploperine $C_{17}H_{25}NO_6$ (mp 159-160°). Haploperine
 218R28

USSR/Chemistry - Alkaloids (Contd)

Jun 52

reacts with acids to form $C_{17}H_{17}NO_6$, mp 138-139°.
 Under the action of CH₃I it forms the isomeric compd
 $C_{14}H_{13}O_6$ (= CO) (=N-CH₃) (OCH₃)₂. It obviously is a
 quinuclidine deriv. The alkaloids are contained mostly
 in the leaves and seeds. Investigated the alkaloid
 content of the above plants.

218R28

No. 5
Mar. 10, 1954
Organic Chemistry

YUNUSOV, S.

13
The alkaloids of *Thalictrum minus*. II. The structure of
thalicminine and thalicmine. S. Yunusov and N. N. Pro-
grossov (Acad. Sci. Uzbek. Tashkent). *J. Gen. Chem.*
U.S.S.R. 22, 1095-1101 (1952) (Engl. translation).—See
C.A. 47, 8034i.
H. J. H.

AF
7-26-54

YUNUSOV, I. S.

Chemical Abst.
Vol. 48 No. 5
Mar. 10, 1954
Organic Chemistry

The alkaloids of *Haplophyllum perforatum*, *H. pedicellatum*, *H. dubium*, *H. bucharicum*, and *H. versicolor*. I. S. Yunusov and G. P. Sidyakina (Acad. Sci. Uzbek, Tashkent). *J. Gen. Chem. U.S.S.R.* 22, 1103-8 (1952) (Engl. translation).—See *C.A.* 47, 8084f.
H. L. H.

MF
7-28-54

YUNUSOV, S.

Chemical Abst.
Vol. 48 No. 5
Mar. 10, 1954
Organic Chemistry

Alkaloids of Delphinium. IV. Delsemidine. S. Yunusov and N. K. Abubakirov (Acad. Sci., Tashkent). J. Gen. Chem. U.S.S.R. 22, 1603-5 (1952) (Engl. translation).
See C.A. 47, 7515i. H. L. H.

11K
7-28-54

YUNUSOV, S.YU.

The Committee on State Prizes for the Council of Ministers (USSR) is the first to
 science and inventions announces that the following scientific works, popular sci-
 entific books, and textbooks have been submitted for competition for State Prizes for
 the years 1953 and 1954. (Sovetskaya Kultura, Moscow, No. 20440, 20 Feb - 2 Apr 1954)

| NAME | Title of work | Nominated by |
|---------------|--|---|
| Yunusov, S.Yu | "Investigation in the
Field of the Chemistry
of Alkaloids" | Presidium, Academy of Sci-
ences Uzbek SSR (6) |

801 4420004, 1 May 1954

YUNISOV B. YU.; and ABDURAKHIMOV M. K.

Delbine and Delphatine. V. Study of Delphinium Alkaloids, Page 1493, Sbornik statey po obshchey khimii (Collection of Papers on General Chemistry), Vol II, Moscow-Leningrad, 1953, pages 1680-1686.

Laboratory of the Chemistry of Alkaloids, Inst of Chemistry, Acad Sci Uz SSR

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963120020-7

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963120020-7"

11. Muscovy, S. G.

Investigation of alkaloids from *Aconitum napellus*
 S. Yu. Yunusov, E. V. Sotkova and G. I. Lomakin
Doklady Akad. Nauk Uzbek. S.S.R. 1954, No. 2, 21-2
Refer. Zhur. Khim. 1954, No. 48111, et al. 1-50-712
 —The roots of this plant are used in central Asia as a medicine.
 The above-ground part contains 1.0% and the roots
 1.82% of alkaloids. To isolate the alkaloids a diethyl-
 ethane ext. was treated with dil. acid and the mixt. of bases
 in the acid ext. was pptd. with NH_4OH . The mother liquor
 was satd. with NaCl and extd. with CHCl_3 . The ext.
 was fractionated with org. solvents and depending on the
 strength of the bases up to 20% of cryst. alkaloids were ob-
 tained. Acid or alk. sapon. of the mixt. followed by frac-
 tionation yielded 50% of cryst. alkaloids and veratrine acid.
 The largest component was the optically inactive talit-
 zamine, m. 145-5°. Its formula is $\text{C}_{21}\text{H}_{29}\text{N}_3$ and not
 as previously suggested, $\text{C}_{21}\text{H}_{27}\text{N}_3$ (cf. Komayeva and
 Orekhov, *Zhur. Obshch. Khim.* 10, 745 (1940)). The tertiary
 N atom is combined with an Et radical. Oxidation with
 KMnO_4 liberated MeCHO . The alkaloid contains 3 OMe
 and 2 OH groups. Cryst. monoacetate and succinate were
 also obtained. A second alkaloid was apparently talitamine,
 $\text{C}_{21}\text{H}_{27}\text{N}_3$, m. 246-7°, [alp. +55.5°. It contained a double
 bond and had no OMe groups. A third alkaloid m. 243-
 2°, [alp. -95.1°. M. 145-5°

YUNUSOV, S. YU.

USSR/Chemistry

Card 1/1

Authors : Abubakirov, N. K.; and Yunusov, S. Yu.

Title : Investigation of Delphinium alkaloids. Part
of delphisine.

Periodical : Zhur. Ob. Khim. 24, Ed. 4, 737 - 738, April

Abstract : The author carried out the transformation of a
nitroso compound into the nor-basis. The
iodide produces a compound identical to that
presence of the N-ethyl group in acetone solution
of conversions. Fifteen references; in
Japanese, English since 1956.

Institution : Institute of Chemistry at the Acad.

Submitted : December 11, 1967

Yanusov, S. Yu.

62 ✓ Alkaloids of *Aconitum talasticum* S. Yu. Yanusov, E. V. Sebkova, and G. F. Potemkin. *Dokl. Akad. Nauk SSSR*, 24, 2237-42 (1951). [cf. *ibid.* 42, 2940 (1951)]. The crude alkaloid extract obtained from 70 g. of dried plant leaves and stems was refluxed 5 hrs. with 10% H₂SO₄, cooled, extd. with Et₂O, filtered, and treated with NH₄OH. The pptd. material was extd. with CHCl₃ and the extract evaporated and rubbed with MeOH giving 2 g. of substance (I), with further amt. recovered from the mother liquor. Total yield was 92 mg. The Et₂O ext. yielded crystals melting at 180-181°. Fractional pptn. of the extract with Et₂O gave from 10% H₂SO₄ by gradual addition of NH₄OH a substance (II) which on treatment with 10% NaOH gave 10 mg. of I and a substance (III) m. 145-146° (from MeOH); II, C₂₁H₂₃O₅N₂ · H₂O, m. 78-80° (from EtOAc), III, C₂₁H₂₃O₅N₂ · 2H₂O, m. 78-80° (from EtOAc), IV, C₂₁H₂₃O₅N₂ · H₂O, m. 67.5-68.5°, [α]_D²⁰ -12.8° (H₂O) [anhyd. salt, dextro, [α]_D²⁰ -14.8° (H₂O)], monoacetate, m. 91-92°, turning on standing with Ac₂O, NaOH yields the diacetate, m. 112-113°, [α]_D²⁰ -5.35° (MeOH); hydrolysis of this with NaOH gave the original alkaloid. I, m. 220-221°. Oxidation of I with KMnO₄-H₂SO₄ gave AcH. Thus I can be represented by C₂₁H₂₃N₂O₅ · H₂O. Talcott m. 116-117°, [α]_D²⁰ 38.5° (cf. Yanusov and Gerasimov, *Dokl. Akad. Nauk SSSR*, 34, 450°), has 1.5 cubic units as shown by absorption of 1 mole H over PtO₂.

V Alkaloids of seeds of *Lolium cuneatum* S. Y. Yunusov
and S. F. Akramov. *Zhur Obshchek Akim* 28: 1273-29
1956. - The (CHCl₃) ext. of the seeds of *L. cuneatum*
gave a CHCl₃-sol fraction of alkaloids which made up
0.26% weight based on the following alkaloids were
isolated by fractional distn.: **isoline**, bp. 106-107°C/
carbazole, bp. 102-3°, which can be sublimed at 60-65°C/
bp. 210-10°; **methylone**, bp. 210-12°; **loline** (lit., b.p.
[CO]₂(NMe)₂(NH), in 103°, as-HCl salt decamp. 2 x 7°;
[α]_D 5.2°, used for purification of the free base, bp. 159°;
Ga 1.3440, n_D 1.6606, [α]_D 18.5° (in-HCl salt decamp.
264-5°, [α]_D 3.8°, in-HCl salt decamp. 235-5°, in EtOH
distillate m. 148-9°, [α]_D 6.18°, mononitrate, m. 208-9°;
perchlorate, decamp. 282°. sulfate, decamp. 250-5°;
picrate, decamp. 258-6°); 1 MeI, in 210-12° (from 10 ml
MeOH); is accompanied by N-methylloine MeI compound
267-9° [α]_D -4.84° on treatment of 1 with MeI, the
latter is acid by virtue of greater s-s in eq. MeOH;
L (2 g.) with 0.96 g. 40% formalin and 0.59 g. HCl/H re-

[illegible]

YUNUSOV, S.Yu., akademik; YULDASHEV, P.; PLEKHANOVA, N.V.

Study on alkaloids from the aboveground portion of Vinca erecta
Rgt. et Schmalh. Dokl. AN Uz. SSR no.7:13-15 '56.
(MIRA 12:6)

1. Akademiya nauk UzSSR (for Yunusov).
(Alkaloids) (Vinca)

YUNUSOV, S. YU.

In the article, "Reserpinin From *Vinca erecta*," S. Yu. Yunusov, Academician of the Academy of Sciences Uzbek SSR and P. M. Ibragimov, Institute of Chemistry, Academy of Sciences Uzbek SSR, describe the method of isolation of the alkaloid reserpinin from *Vinca erecta*, a plant of the Apocynaceae family closely related to the plant *Rauwolfia*. A total of 2.6 percent of alkaloids are extracted with ether from the roots of the plant. These include the alkaloids vinkanin-- $C_{19}H_{22}ON_2$, vinkadinin-- $C_{20}H_{24}O_3N_2$, and reserpinin-- $C_{23}H_{26}O_4N_2$; reserpinin is saponified with an alkali to form reserpinic acid. The acid and its nitrate are then methylated with diatomethane to obtain the pure alkaloid. (Doklady Akademii Nauk Uzbekskoy SSR, No 9, 1956, pp 23-25)

Sum. 1305

YUNUSOV, S.Yu., akademik; ISMAILOV, Z.P.

Alkaloids from Linaria popovii Kuprian. Dokl. AN Uz. SSR no. 11:25-27
'56. (MIRA 13:6)

1. Institut khimii AN UzSSR. 2. Akademiya nauk UzSSR (for Yunusov).
(Alkaloids) (Figwert)

YUNUSOV, S. Yu.

ABUDAKIROV, N.K.; YUNUSOV, S.Yu.

Delphinium alkaloids. Zhur.ob.khim. 26 no.6:1798-1808 Je '56.
(MIRA 11:1)

1.Institut khimii AN Uzbekskoy SSR.
(Delphonine)

YUNUSOV, S. Y.
KARIMOV, U.I.; YUNUSOV, S. Y., akademik, otvetstvennyy redaktor;
LYUBECHANSKAYA, N.I., redaktor izdatel'stva; SHEPIL'KOV, A.T.,
tekhnicheskii redaktor

[An unknown work by al-Razi, "The Book of the Secret of Secrets."]
Neizvestnoe sochinenie ar-Razi "Kniga tsiny tain." Tashkent, Izd-vo
Akad.nauk Uzbekskoi SSR, 1957. 190 p. (MIRA 10:11)

1. Akademiya nauk UzSSR (for Yunusov)
(Muhammad Ibn Zakariya, Abu Bakr, al-Razi, 10th cent.)
(Alchemy)

PAKUDINA, Z.P.; YUNUSOV, S.Yu., akademik

Thermopsis alterniflora alkaloids. Izv. AN Uz. SSR Ser. khim.
nauk no.2:69-75 '57. (MIRA 11:8)

1. AN Uz. SSR (for Yunusov)
(Alkaloids)

YUNUSOV, S.Yu., akademik; PIEKHANOVA, N.V.

Study of Trichodesma incanum alkaloids. Dokl.AN Uz, SSR no.
4:31-33 '57. (MIRA 11:5)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.
2. AN UzSSR.
(Alkaloids)

YUNUSOV, S.Yu., akademik; PLEKHANOVA, N.V.

Incanine structure. Dokl. AN Uz. SSR no.5:13-16 '57. (MIRA 11:5)

1. Institut khimii rastitel'nykh veshchestv i khlopka AN UzSSR.
2. AN UzSSR (for Yunusov).
(Incanine)

YUNUSOV, S.Yu., akademik; FLEKHANOVA, N.V.

Structure of trichodesmin, Dokl. AN Uz. SSR no.6:19-22 '57.

(MIRA 11:5)

1. Institut khimii rastitel'nykh veshchestv i khlopka AN UzSSR.

2. AN UzSSR (for Yunusov)

(Alkaloids)

YUNUSOV, S.Yu., akademik; AKRAMOV, S.T.; SIDYAKIN, G.P.

Study of alkaloids extracted from pabularia and hypecoun trilobius.
Dokl. AN Uz. SSR no.7:23-25 '57. (MIRA 11:5)

1. Institut khimii rastitel'nogo syr'ya i khlopka AN UzSSR,
 2. AN UzSSR (for Yunusov).
- (Alkaloids)

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6478

Author : Yunusov, S. Yu.; Plekhanova, N. V.

Inst : Academy of Science, UzSSR

Title : Study of Alkaloids in Sophora Griffithii
Stock

Orig Pub : Dokl. AN UzSSR, 1957, No 8, 17-19

Abstract : Alkaloids derived from the leaves and seeds
of *S. griffithii* were isolated. The content
of alkaloids in leaves (~4.65%) was
approximately the same during the fruit
bearing stage and after the fall of fruits;
1.6% of pachycarpine and 0.57% of cytisine
were obtained by separating the alkaloids.
5.93% of the alkaloids were isolated from

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6478

seeds. 4.12% of cytisine were obtained by separating these alkaloids. The method of extraction of the alkaloids, their separation and identification are described. -- A. A. Zaytseva

Card 2/2

YUNUSOV, S.Yu.; Yuldashev, P.Kh.

Study of the alkaloids extracted from *Vinca erecta* Rgl. et Schmalh.
Zhur.ob.khim. 27 no.7:2015-2018 JI '57. (MIRA 10:10)

1. Institut khimii rastitel'nykh veshchestv i khlopka AN Uzbekskoy
SSR.

(Alkaloids) (Apocynaceae)

AUTHORS: Yunusov, S. Yu., Abduazimov, Kh. A. 79-12-36/43

TITLE: An Investigation of the Four Types of Alkaloids From Ungernia (Issledovaniye alkaloidov chetyrekh vidov Ungernia).

PERIODICAL: Zhurnal Obshchey Khimii 1957, Vol. 27, Nr 12, pp. 3357-3361 (USSR)

ABSTRACT: The alkaloids of the plant species Ungernia were subject to few chemical and pharmacological investigations. Only the tazettine was separated from the species "Ungernia Severtzovii" and the "likorine" from "Ungernia tadshicorum". On the investigation of the first species a production rate of 0,7 - 0,29 % of alkaloid from the bulbs was established. It was succeeded, to isolate three crystalline radicals from the alkaloid mixture of the bulbs. One of these forms a series of crystalline salts. A free alkaloid was separated from the purified chlorine hydrate. An empiric formula $C_{19}H_{23}NO_5$ of this alkaloid was computed on the basis of an elementary analysis of the radical itself as well as of its nitrate. It was called ungerine. After the removal of the ungerine from the remaining alkaloid mixture the already mentioned tazettine was separated on the basis of their different solubility in acetone and alcohol. The third alkaloid from "Ungernia

Card 1/2

An Investigation of the Four Types of Alkaloids From Ungernia 79-12-36/43

Severtzovii" appeared to be new and was called ungeridine. It has the experimental formula $C_{20}H_{25}NO_4$ and its structure was determined more exactly (see formula!). It appears, that two new alkaloids were obtained apart from tazettine and likorine from "Ungernia Severtzovii". From the bulbs of "Ungernia tadshicorum" likorine and ungeridine were isolated, from the bulbs of "Ungernia Victoris" galamantine and likorine. The bulbs of "Ungernia ferganica" contain tazettine and likorine. These alkaloids were all four examined pharmacologically by Mushkovskiy M. D. There are 8 references, 8 of which are Slavic.

ASSOCIATION: Institute of Vegetable Raw Materials and Cotton Chemistry (Institut khimii i rastitel'nogo syr'ya i khlopka).

SUBMITTED: August 21, 1956

AVAILABLE: Library of Congress

1. Alkaloids - Sources

Card 2/2

YESKAIROV, M.; SIDYANIK, G.P.; YUNUSOV, S.Yu., akademik.

Alkaloids of *Haplophyllum foliosum* Vred.; foliosidine. Dokl. AN
Uz.SSR no.5:23-26 '58. (MIRA 11:8)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.
(Rus) (Alkaloids)

SIDYAKIN, G.P.; YESKAIROV, M.; YUNUSOV, S.Yu., akademik

Alkaloids of *Haplophyllum foliosum* Vved. Structure of dubinidine.
Dokl. AN Uz. SSR no.8:27-29 '58. (MIRA 11:9)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. AN UzSSR
(for Yunusov).

(Dubinidine)

SIDYAKIN, G.P.; TESKAIROV, M.; YUNUSOV, S.Yu., akademik

Alkaloids of *Haplophyllum foliosum* Vved. Structure of dubinidine.
Dokl. AN Uz.SSR no.9:17-18 '58. (MIRA 11:12)

1. AN UzSSR (for Yunusov). 2. Institut khimii rastitel'nykh
veshchestv AN UzSSR.

(Dubinidine)

YUNUSOV, S.Yu., akademik; SHAKIROV, T.T.; PLEKHANOVA, N.V.

Alkaloids from *Convolvulus subhirsutus* Rgl. and Schumacher of the family Convolvulaceae. Dok. AN UzSSR no.10:17-20 '58.

(MIRA 11:12)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR, 2. Chlen-korrespondent AN SSSR i akademik AN UzSSR (for Yunusov).

(Alkaloids) (Bindweed)

YUNUSOV, S.Yu., akademik; PLEKHANOVA, N.V.; SHAKIROV, T.

Investigation of several species of Eremurus. Dokl. AN Uz.SSR
no.11:25-27 ' 58. (MIRA 11:12)

1. Chlen-korrespondent AN SSSR, AN UzSSR (for Yunusov). 2. Institut
khimii rastitel'nykh veshchestv AN UzSSR.
(Lilies) (Alkaloids)

YUNUSOV, S.Yu., akademik; PLEKHANOVA, N.V.

Alkaloids from *Rindera cyclodonta* Bge. from the Boraginaceae family. Dokl. AN Uz. SSR no. 12:27-30 '58. (MIRA 12:1)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. AN UzSSR i chlen-korrespondent AN SSSR (for Yunusov).
(Asia, Central--Boraginaceae) (Alkaloids)

YUNUSOV, S.Yu., akademik; AKRAMOV, S.T.

Study on alkaloids from the seeds of *Lolium cuneatum* (Nevski).
Dokl. AN Uz. SSR no. 3:36-39 '59. (MIRA 12:7)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. AN: UzSSR
(for Yunusov).
(Alkaloids)

SHAKIROV, T.; SIDYAKIN, G.P.; YUNUSOV, S.Yu., akademik

Alkaloids from seeds of *Haplophyllum perforatum*. Dokl. AN Uz. SSR
no. 6:28-30 '59. (MIRA 12:9)

1. Institut khimii rastitel'nykh veshchestv AN Uz. SSR. 2. AN
Uz. SSR (for Yunusov). (Alkaloids)

ISMAILOV, Z.F.; MATEKH, S.Kh.; YUNUSOV, S.Yu., akademik

Alkaloids from the roots of *Thalictrum simplex* L. Dokl. AN Uz.
SSR no.7:32-34 '59. (MIRA 12:10)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. AN
UzSSR (for Yunusov).
(Alkaloids) (Meadow rue)

SIDYAKIN, G.P.; BESSONOVA, I.A.; YUNUSOV, S.Yu.

Alkaloids of seeds of *Haplophyllum perforatum*: Perforin. Dokl.
AN Uz.SSR no.10:33-35 '59 (MIRA 13:3)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. Chlen-
korrespondent AN SSSR (for Yunusov).
(Alkaloids)

YUNUSOV, S.Yu.; ABDUSAMATOV, A.; ABDUAZIMOV, Kh.A.

Studying alkaloids of plants of the genus Jurinea. Dokl.
AN Uz.SSR no.11:29-31 '59. (MIRA 13:4)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.
2. Chlen-korr. AN SSSR (for Yunusov).
(Jurinea) (Alkaloids)

AUTHORS: Yunusov, S. Yu. and Plekhanova, N. V. SOV/79-29-2-66/71

TITLE: Alkaloids of the Plant *Trichodesma Incanum* (Alkaloidy *Trichodesma incanum*)
Structure of Incanine and Trichodesmine (Stroyeniye inkanina i trikhodesmina)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 677-684 (USSR)

ABSTRACT: Men'shikov, G. P. and Rubinshteyn, M. M. (Ref 1) separated the alkaloid trichodesmine (0.075 %) from the subterranean parts of the above plant. By lengthy extraction with ether and chloroform the authors obtained from its seeds various mixtures consisting of bases (Ref 5). On separating the alkaloid mixture (from ripe seeds) four crystalline bases were separated by making use of their different solubility in ether, benzene and acetone. The first alkaloid was unknown and was given the name of "incanine" (I); the second was the N-oxide form of incanine; the third was found to be trichodesmine (II), and the fourth was the N-oxide form of trichodesmine. Both the quantitative and qualitative composition of the alkaloids in the seeds vary markedly depending on the degree of ripeness, on the place of growth, and as far as the subterranean parts are concerned, on the plant developing stage (Table). Thus the following new

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Alkaloids of the Plant *Trichodesma Incanum*. Structure of Incanine and Trichodesmine

SOV/79-29-2-66/71

alkaloids were separated from the seeds and the upper part of the plant *Trichodesma incanum* (Bge) DC: incanine ($C_{18}H_{27}O_5N$), the N-oxide of incanine, trichodesmine ($C_{18}H_{27}O_6N$), and the N-oxide of trichodesmine. Depending on the type of saponification of incanine, new geometrical acids are formed: incanine acid and isoincanine acid from the composition $C_{10}H_{16}O_4$ (V). The conversion of the former into the latter and vice versa was put into practice. The reduction of the methyl esters of both acids with $LiAlH_4$ gave trioxy compounds having the composition $C_{10}H_{22}O_3$ (III). Compounds (V) are γ -lactone of 2-oxy-3,5-dimethylhexane-2,4-dicarboxylic acid (IV). Incanine (I) has the structure of the cyclic diester of retronecine and of 2-oxy-3,5-dimethylhexane-2,4-dicarboxylic acid. The structure of trichodesmine acid (VII), which is a γ -lactonic acid of 2,3-dioxy-3,5-dimethylhexane-2,4-dicarboxylic acid (VI), was determined. Trichodesmine is a cyclic diester of retronecine and of 2,3-dioxy-3,5-dimethylhexane-2,4-dicarboxylic acid (II). There are 1 table and 10 references, 8 of which are Soviet.

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SOV/79-29-2-66/71
Alkaloids of the Plant *Trichodesma Incanum*. Structure of Incanine and Trichodesmine

ASSOCIATION: Institut khimii rastitel'nykh veshchestv Akademii nauk Uzbekskoy SSR (Institute for the Chemistry of Vegetable Matter of the Academy of Sciences, Uzbekakaya SSR)

SUBMITTED: January 3, 1958

Card 3/3

5(3)

AUTHORS:

Yunusov, S. Yu., Abdunazimov, Kh. A.

SOV/79-29-5-67/75

TITLE:

Investigation of the Alkaloids of Ungernia Severtzovii
(Issledovaniya alkaloidov Ungernia Severtzovii).
Structure of "Ungerine" (Stroyeniye ungerina)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1724-1728
(USSR)

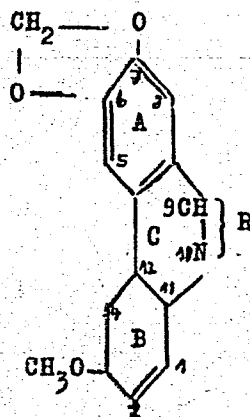
ABSTRACT:

On distilling "Ungerine" with zinc dust the authors obtained phenanthridine, and in the oxidation with potassium permanganate they obtained hydrastic acid. In the Hofmann decomposition a second double bond is formed in the tetrahydro benzene ring B, and a third by cleaving the methoxyl group as methyl alcohol; the ring is thus aromatized. This was established by the fact that benzoic acid was obtained in the oxidation of des-N-methyl "Ungerine". "Ungerine" is a derivative of phenanthridine, in which the methylene dioxy group is in position 6 - 7. The double bond lies most probably between the carbon atoms 1 - 2, the methoxyl group in position 3.

Card 1/2

Investigation of the Alkaloids of Ungernia
Severtzovii. Structure of "Ungerine"

SOV/79-29-5-67/75



There are 6 references, 2 of which are Soviet.

ASSOCIATION: Institut khimii rastitel'nykh veshchestv Akademii nauk
Uzbekskoy SSR (Institute of the Chemistry of Vegetable
Substances of the Academy of Sciences, Uzbekskaya SSR)

SUBMITTED: January 6, 1958
Card 2/2

5.3900

77414

SOV/79-30-1-75/78

AUTHORS: Sidyakin, G. P., Yeskairov, M., Yunusov, S. Yu.

TITLE: Alkaloids of the Haplophyllum Foliosum Vved.
Structure of Dubinidine

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 1, pp 338-345 (USSR)

ABSTRACT: This is a continuation of the investigation of the genus Haplophyllum A. Juss. (family Rutaceae) (Yunusov, S. Yu., Sidyakin, G. P., Zhur. Obshchey Khim., 22, 1055 (1952); 25, 2009 (1955); Doklady Akad. Nauk UzSSR, 12, 15 (1950)). The authors studied the alkaloids of the species Haplophyllum foliosum Vved. (from its stem, leaves, and green seeds). Four alkaloids were isolated: dubinidine (which was first obtained from Haplophyllum dubium Eng. Kor. -- see the reference cited above), skimmianine, and two new alkaloids called by the authors "foliosine" (foliozin) (Doklady Akad. Nauk

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Alkaloids of the Haplophyllum Foliosum Vved.
Structure of Dubinidine

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UzSSR, 2, 21 (1957)) and "foliosidine" (foliozidin) (ibid., 5, 23 (1958)). Dubinidine was precipitated from aqueous solution of the alkaloids (this solution was obtained by treating the chloroform extracts of *H. foliosum* with sulfuric acid) with gaseous NH_3 .

The precipitate was dissolved in acetone and converted into the hydrochloride (mp 195-196°, $[\alpha]_D^{18}$ (-53.92°)).

Pure dubinidine (mp 132-133°, $[\alpha]_D^{26.5}$ (-62.95°)) was obtained by addition of concentrated NH_4OH to aqueous suspension of its hydrochloride. Its ultraviolet spectrum is shown in the figure below, along with spectrum of dihydroflindersine (which has a pyranoquinoline structure).

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Alkaloids of the *Haplophyllum Foliosum*
Vved. Structure of Dubinidine

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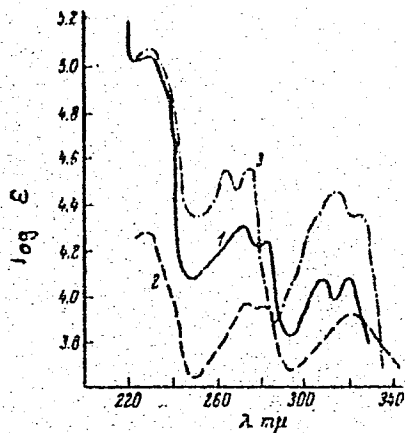


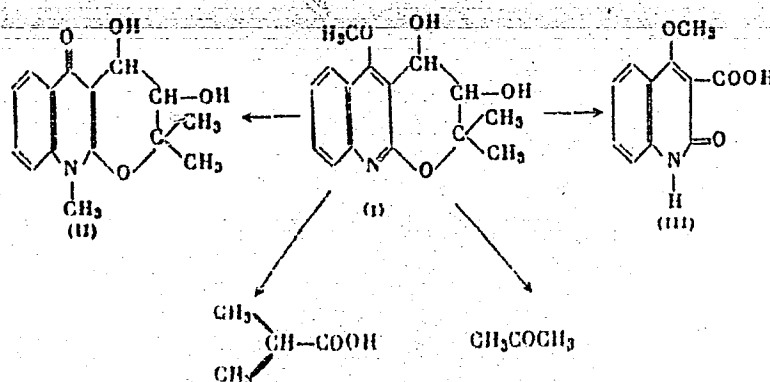
Figure. Ultraviolet
absorption spectra. (1)
dubinidine; (2) dihydro-
flindersine; (3) 4-methoxy-
quinoline-2.

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Alkaloids of the Haplophyllum Foliosum
Vved. Structure of Dubinidine

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SOV/79-30-1-75/78

Decarboxylation, iodomethylation, oxidation (with KMnO_4 , chromic, and periodic acids) etc., have proven the structure of dubinidine to be identical with (I) in the figure below, i.e., with 2,2-dimethyl-3,4-dioxy-5-methoxy- α, β -dihydropyranoquinoline.



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Alkaloids of the Haplophyllum Foliosum
Vved. Structure of Dubinidine

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SOV/79-30-1-75/78

The following derivatives of dubinidine were prepared and investigated: hydrobromide (mp 197-198°); hydroiodide (mp 161-162°, $[\alpha]_D^{18} (-47.32^\circ)$); nitrate (mp 176-177°, $[\alpha]_D^{22} (-52.39^\circ)$); methiodide mp 153-154° which, upon addition of alcoholic alkali, gave isodubinidine, compound (II) in the figure above (mp 214-215°, $[\alpha]_D^{25} (+21.05^\circ)$); diacetyldubinidine (mp 108-109°, $[\alpha]_D^{19} (-47.70^\circ)$). Oxidation with $KMnO_4$ led to an aldehyde and then to the optically inactive dictamninic acid (III in the figure above). Skimmianine was separated from the other two alkaloids (the solid mixture was obtained from the chloroform extracts of the solution which was left after precipitation of dubinidine by triturating the mixture in acetone, which dissolves foliosine and foliosidine). The mixture of the two latter compounds was purified by subsequent addition of 10%

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Alkaloids of the Haplophyllum Foliosum
Vved. Structure of Dubinidine

77414

SOV/79-30-1-75/78

HCl and ammonia and extraction with chloroform (followed by distillation of the latter). The residue was dissolved in methanol and acidified with alcoholic HCl. The optically inactive foliosine hydrochloride (mp 253-254°) fell out after addition of threefold amount of acetone to the cooled solution and was converted to foliosine by addition of 25% NH₄OH (mp 188-189°). The following foliosine derivatives were prepared: hydrobromide (mp 249-250° (decomp.)); hydroiodide (mp 225-226° (decomp.)); nitrate (mp 170-171.5° (decomp.)); methiodide (mp 210-211°); and perchlorate (mp 229-231° (decomp.)). Its formula was found to be: C₁₅H₁₀O(NCH₃)(CH₂O₂).

The alkaloid residue isolated from the acetone solution, which was left after precipitation of foliosine, contained mainly folisidine, C₁₇H₂₃O₅N, mp 141-142° and $[\alpha]_D^{25} (+41.62^\circ)$. Its more detailed formula was found to be C₁₅H₁₅O₂(NCH₃)(OCH₃)(OH)₂.

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Alkaloids of the Haplophyllum Foliosum
Vved. Structure of Dubinidine

77414
SOV/79-30-1-75/78

The ultraviolet spectrum (in alcohol) has the following maxima: λ_{\max}^{234} (log ϵ , 4.94); 252 (log ϵ , 4.92); 324 (log ϵ , 3.98); 234 m μ (log ϵ , 3.84) Abstracter's Note: Two maxima λ_{\max}^{234} are

given in the article. The following derivatives: were prepared: hydrobromide (mp 167-168°); hydrochloride (mp 162-164°); foliosidine picrate (mp 182-183°); and diacetylfoliosidine (mp 129-130°, $[\alpha]_D^{18}$ (+14.95°)). There is 1 figure; and 14 ref-

erences, 7 Soviet, 5 German, 1 U.K., and 1 U.S. The U.S. and U.K. references are: G. Sidney, A. F. Smith, E. C. Horning, J. Am. Chem. Soc. 79, 2239 (1957); R. F. C. Brown, J. J. Hoobs, L. K. Hughes, E. Ritchie, Austral. J. Chem., 7, 4, 348 (1954).

ASSOCIATION:
Card 7/8

Institute of Chemistry of Plant Substances, Academy of Sciences of the UzbekSSR (Institut khimii rastitel'

Alkaloids of the Haplophyllum Foliosum
Vved. Structure of Dubinidine

77414
SOV/79-30-1-75/78

nykh veshchestv Akademii nauk Uzbekskoy SSR)

SUBMITTED: October 29, 1958

Card 8/8

5.3610, 5.3900

77918

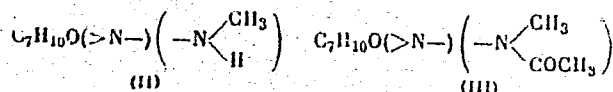
SOV/79-33-2-69/78

AUTHORS: Yunusov, S. Yu. Akramov, S. T.

TITLE: Investigation of Alkaloids of Lollum Cuneatum.
Communication II.

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 2,
pp 677-682 (USSR)

ABSTRACT: The authors reported previously (this j., 1955, Vol 25, p 1813) the separation of 3 new alkaloids from the seeds of *Lolium cuneatum* Nevski (fam. Gramineae), which they named lolinidin (I), lolin (II), and lolinin (III).



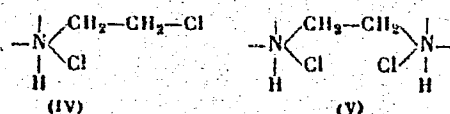
It was also established (Izv. AN UzSSR, ser. khim., 1957, Vol 2, p 69) that dichloroethane condenses readily with alkaloids containing primary and

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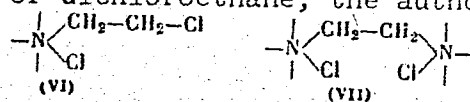
Investigation of Alkaloids of Lolium
Cuneatum. Communication II.

77918
SOV/79-30-2-69/78

secondary nitrogen atoms in the molecule, and that it forms type (IV) or (V) compounds. Dichloroethane can form also type (VI) or (VII) compounds on condensation with strong tertiary bases.



The yield of IV-VII depends on the time and temperature of the reaction. Lolium II was condensed with chloroethane and gave crystalline compounds of IV or VI structure (yield 65%; mp 135-136° C) named by the authors lolinchloroethane. Taking into account the above properties of dichloroethane, the authors extracted



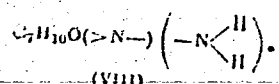
Card 2/5

Investigation of Alkaloids of *Lolium*
cuneatum. Communication II.

77918

36V/19-20-2-62/16

Lolium cuneatum seeds with chloroform; the extract, after separation of substances soluble and insoluble in acetone, gave, on treatment with a methanolic solution of HCl and a methanolic solution of sodium perchlorate, a new alkaloid named norlolin (VIII), obtained in the form of its diperchlorate. Free norloline had a bp 94-95° C at 2 mm; d_{20}^{20} 1.1793; n_D^{16} 1.5220; on standing, it absorbed CO₂ from air and gave a crystalline carbonate (mp 141° C).



It was shown that VIII is identical with the product of oxidation of lolin with KMnO₄ in an acid medium, and that it gives easily dinitrates, dihydrochlorides and diperates. Acetylation of VIII gave N-diacetyl-norlolin (IX) bp 190-195° C at 2 mm, a glass-like, noncrystallizable substance, which on heating with

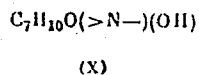
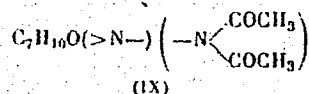
Card 3/5

Investigation of Alkaloids of *Lolium*
Cuneatum. Communication II.

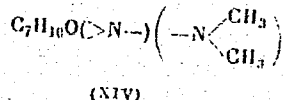
77918

SOV/79-30-2-69/78

30% sulfuric acid gave again VIII. Diazotization of VIII gave a crystalline amino alcohol (X; mp 192° C), named by the authors heminorlolin, which gave readily the corresponding hydrochloride, bromohydrate, and picrate.



Methylation of VIII with formaldehyde and formic acid in 1:2:2 molar ratio gave N-methylololin (XIV), which with KMnO_4 and sulfuric acid (2 g-atoms O), was oxidized to II; similar oxidation in acetone (6 g-atoms O) gave VIII.



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Investigation of Alkaloids of Lolium
Cuneatum. Communication II.

77918

SOV/79-30-2-69/78

Lolin II was oxidized to VIII with KMnO_4 in sulfuric acid. There are 7 Soviet references.

ASSOCIATION: Chemical Institute for Plant Substances, Academy of Sciences of the Uzbek SSR (Institut khimii rastitel'nykh veshchestv Akademii nauk Uzbekskoy SSR)

SUBMITTED: February 25, 1959

Card 5/5

5.3610,5.3900

77919

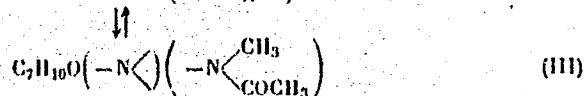
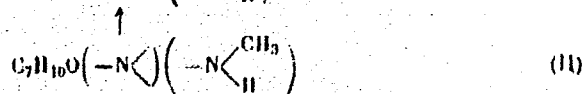
SOV/79-30-2-70/78

AUTHORS: Yunusov, S. Yu., Akramov, S. T.

TITLE: Investigation of Alkaloids of Lolium Cuneatum. Communication III

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 2, pp 683-689 (USSR)

ABSTRACT: Norlolin (I), lolin (II), and lolinin (III) have a common heterocyclic ring; this has been demonstrated in the preceding study by the mutual conversion of one of the above alkaloids into another (our abstract 77918).

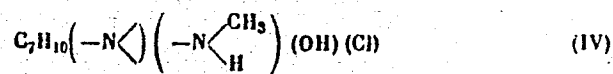


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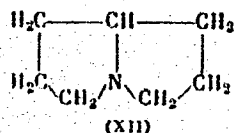
Investigation of Alkaloids of Lolium
Cuneatum. Communication III

77919
SOV/79-30-2-70/78

Lolin on heating with 15% HCl in sealed ampoules at 130-140° C gave hydroxychlorololin (IV; mp 105-106° C from acetone; $[\alpha]_D^{16} -74.49$).



It was established that the properties of I-III coincide closely with the properties of pyrrolizidine (XII):



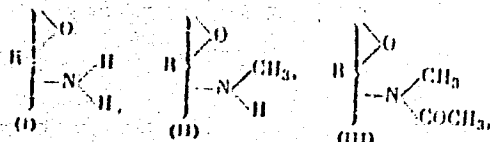
Card 2/3

Investigation of Alkaloids of *Lolium*
Cuneatum. Communication III

77919

SOV/79-30-2-70/76

Hence, the above 3 alkaloids are derivatives of XII and can be represented by the formulas:



where R is the radical obtained by subtracting 3 hydrogen atoms from the XII molecule. There are 5 references, 1 U.S., 4 Soviet. The U.S. reference is: N. G. Brink, F. A. Kuehl, Jr., E. H. Flunn, J. Am. Chem. Soc., 68, 2557 (1946).

ASSOCIATION: Chemical Institute for Plant Substances, Academy of Sciences of Uzbek SSR (Institut khimii rastitel'nykh veshchestv Akademii nauk Uzbekskoy SSR)

SUBMITTED: March 16, 1959

Card 3/3

YUNUSOV, S.Yu.; ISMAILOV, Z.F.

Alkaloids of *Thalictrum minus* L. Part 3: Structure of thal-
mine. Zhur.ob.khim. 30 no.5:1721-1727 My '60.
(MIRA 13:5)

1. Institut khimii rastitel'nykh veshchestv Akademii nauk
Uzbekskoy SSR.
(Alkaloids)

YUNUSOV, S.Yu.; AKRAMOV, S.T.

Structure of norloline, loline, and loline. Part 4. Zhur. ob.
khim. 39 no.9:3132-3137 S '60. (MIRA 13:9)

11 Institut khimii rastitel'nykh veshchestv Akademii nauk Uzbekskoy
SSR.

(Loline) (Loline) (Norloline)

ABDUSAMATOV, A.; ABDUAZIMOV, Kh.A.; YUNUSOV, S.Yu.

Alkaloids from *Ungernia victoris* VVED. Uzb.khim.zhur. 6
no.1:45-55 '62. (MIRA 15:3)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.
(Alkaloids)

SIDYAKIN, G. P.; BESSONOVA, I. A.; PASTUKHOVA, V. I.; YUNUSOV, S. Yu.

Alkaloids Haplophyllum. Part 3: Structure of dubinidine and
dubamine. Zhur. ob. khim. 32 no.12:4091-4096 D '62.
(MIRA 16:1)

1. Institut khimii rastitel'nykh veshchestv AN Uzbekskoy SSR.

(Alkaloids) (Dubinidine)

YULDASHEV, P.A.; YUNUSOV, S.Yu.

Structure of vincanine. Uzb.khim.zhur. 7 no.1:44-49 '63.
(MIRA 16:4)

1. Institut rastitel'nykh veshchestv AN UzSSR.
(Vincanine)

UBAYEV, Kh.; YULDASHEV, P.Kh.; YUNUSOV, S.Yu.

Study of alkaloids of Pedicularis olgae RGL. Uzb.khim.zhur. 7 no.3:
33-36 '63. (MIRA 16:9)

Institut khimii rastitel'nykh veshchestv AN UzSSR.
(Figwort) (Alkaloids)

FAKHRUTDINOVA, I.M.; SIDYAKIN, G.P.; YUNUSOV, S.Yu.

Alkaloids from *Haplophyllium foliosum*. Haplopholin. Uzb. khim.
zhur. 7 no.4:41-43 '63. (MIRA 16:10)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.

ABDUSAMATOV, A.; ABUDAZIMOV, Kh.A.; YUNUSOV, S.Yu., akademik

Alkaloids from Ungernia tadshicorum Vved. and artificial alkaloids
from Ungernia victoris Vved. Dokl. AN Uz. SSR 20 no.1:18-21 '63.
(MIRA 16:6)

1. Institut khimii rastitel'nykh veshchestv AN Uzbekskoy SSR.

2. AN Uzbekskoy SSR (for Yunusov).
(Alkaloids) (Ungernia)

ABDUAZIMOV, Kh.A.; YUNUSOV, S.Yu.

Structure of ungerine. Dokl. AN SSSR 153 no.6:1315-1317
D '63. (MIRA 17:1)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.
2. Chlen-korrespondent AN SSSR (for Yunusov).

ALLAYAROV, Kh.; ABDUAZIMOV, Kh.A.; YUNUSOV, S.Yu.

Alkaloids of Ungernia trispheara BGE. Uzb.khim.zhur. 8 no.2;
46-51 '64. (MIRA 17:5)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.

BESSONOVA, I.A.; SIDYAKIN, G.P.; YUNUSOV, S.Yu.

Alkaloids of *Haplophyllum dubium*. Structure of dubinine. Zhur.ob.
khim. 34 no.1:347-351 Ja '64. (MIRA 17:3)

1. Institut Khimii rastitel'nykh veshchestv AN UzSSR.

SMIRNOVA, L.S.; ABDUAZIMOV, Kh.A.; YUNUSOV, S.Yu.

Alkaloids of Ungernia severtzovii. Structure of unsevine. Dokl.
AN SSSR 154 no.1:171-173 Ja'64. (MIRA 17:2)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. Chlen-
korrespondent AN SSSR (for Yunusov).

YULDASHEV, P.Kh.; YUNUSOV, S.Yu.

Vincarine, a new alkaloid from the roots of *Vinca erecta* RGL. et Schmalh.
Dokl. AN SSSR 154 no.6:1412-1413 F '64. (MIRA 17:2)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. Chlen-korrespondent AN SSSR (for Yunusov).

MAYEKH, S.Kh.; YUNUSOV, S.Yu., akademik

Alkaloids of *Thalictrum simplex* L.; structure of talsimin.
Dokl. AN Uz.SSR 21 no.9:27-29 '64. (MIRA 19:1)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.
2. Akademiya nauk UzSSR (for Yunusov).

SMIRNOVA, L.S.; ABDUHAZIMOV, Kh.A.; YUNUSOV, S.Yu.

Alkaloids of *Ugarnia savertzovii* (Rge.) B. Fed. Khim. prirod.
sod. no. 5:322-328. '65. (MIRA, 18:12)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR.
Submitted April 5, 1965.

LUTFULLIN, K.L.; YULDASHEY, P.Kh.; YIRUSOV, S.Yu.

Study of the alkaloids of *Pedicularis algae*. Structure of plant-
agonin and indicain. Khim. prirod. soed. no.5:365-366 '65.
(MIRA 18:12)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. Submitted
August 6, 1965.

KUCHENKOVA, M.A.; YULDASHEV, P.Kh.; YUNUSOV, S.Yu.

Vinervine, a new alkaloid from the above-ground part of
Vinoea erecta RGL et Schmalh. Izv. AN SSSR. Ser. khim. no. 12:2152-
2155 '65. (MIRA 18:12)

1. Institut khimii ras'itel'nykh veshchestv AN UzSSR.
Submitted July 29, 1963.

SHAKIROV, R.; NURIDDINOV, R.N.; YUNUSOV, S.Yu.

Synthesis of "edpetilin." Dokl. AN SSSR 161 no.3:620-621 Mr '65.
(MIRA 18:4)

1. Institut khimii rastitel'nykh veshchestv AN Uzbekskoy SSR.
2. Chlen-korrespondent AN SSSR (for Yunusov).

TELEZHENETSKAYA, M.V.; YUNUSOV, S.Yu.

Structure of thalmine and thalmidine. Dokl. AN SSSR 162 no.2:
354-355 My '65. (MIRA 18:5)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. Chlen-
korrespondent AN SSSR (for Yunusov).

YUNUSOV, S.Yu.; MNATSAKANYAN, V.A.; AKRAMOV, S.T.

Alkaloids of some species of Papaver and Roemeria and the structure of fugapavin. Izv. AN SSSR. Ser. khim. no.3:502-509 '65. (MIRA 18:5)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR,

YUNUSOV, M.S.; AKRAMOV, S.T.; YUNUSOV, S.Yu.

Alkaloids of *Corydalis gortschakivi* and *Corydalis pseudocadunga*.
Dokl. AN SSSR 162 no.3:607-609 My '65. (MIRA 18:5)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. Chlen-korrespondent AN SSSR (for S.Yu.Yunusov).

SHAKIROV, R.; NUHIDINOV, R.N.; YUNUSOV, S.Yu.

Alkaloids of *Petilia Eduardi* (A.Rgl) Vved. *Tr. Khim. Akad. Nauk SSSR*, 1961, 28-44, 161.

1. Institut Khimii i Tekhnologii v Khazraty, 1961.

KASYMOV, Sh.A., YULASHOV, P.M., YUNUSOV, M.M.

Study of alkaloids of the overground part of *Urtica dioica*.
Dokl. AN SSSR 162 no.1:102-103 My '66.

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. O. Gilevskiy -
respondent AN SSSR (for Yunusov).

YULDASHEV, P.Kh.; YUNUSOV, S.Yu.

Structure of vincarine. Dokl. AN SSSR 163 no.1:123-124 J1 '65.

(MIRA 18:7)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. Chlen-korrespondent AN SSSR (for Yunusov).